

LIFE HISTORIES OF NORTH AMERICAN GEOMETRIDAE.—XXXII.

BY HARRISON G. DYAR, WASHINGTON, D. C.

Euchlaena paectinria Den. & Schiff. The mature larva has been described by Packard.

Egg. Elliptical, narrower in one diameter as usual, one side a little straighter than the other, giving a suggestion of reniform shape; micropylar end roundedly truncate, the other not depressed. Reticulations roundedly elevated but with sharply angular crests, regularly hexagonal, some perfect hexagons, the cell areas forming shallow pits; reticulations large, uniform all over; pores at the angles in raised whitish cones, absent on the under side. Size $1 \times .6 \times .5$ mm. Later turned sordid pearly pink.

Stage I. Head rounded, oblique, free, dull grayish luteous, a faint darker band on the side. Body moderate, normal, rather slender, smooth; gray white, a broad straight, even, purple brown subdorsal band, a little diffusely spreading to joint 2, the pair conjoined into a single dorsal band on joints 10–13. A similarly colored broad ventral band, widened a little on the segments, coloring the feet of joints 10 and 13 in a line; thoracic feet pale. Tubercles and setae small, dark, obscure. Larvae active and wild.

Stage II. Head rounded, bilobed, erect, whitish, mottled with brownish over the lobes; width .5 mm. Body grayish white, the broad, dark brown, subdorsal bands joining behind as before; ventral band supplemented by subventral segmentary blotches, diffusely forming a line. Feet pale outwardly. The subdorsal band is divergently triplicate on joint 2. Tubercles and setae minute.

Stage III. Head round, erect, gray, streaked with darker dots especially in two lines on each lobe; width .8 mm. Body moderate, gray, blotched with lighter subventrally, suggesting diamond-shaped markings and lighter along the subventral fold. No

distinct marks, only traces of paler lines, rather numerous, fine, the more distinct one a geminate dorsal, somewhat confusedly blotched. Setae minute.

Stage IV. Head rounded, well bilobed, broad, gray brown, two-thirds of the clypeus and a triangular space on each side of it black edged and trisected by the black clypeal sutures; rest of head mottled in dark, especially in three, broad, parallel vertical bands, obscurely geminate; width 1.3 mm. Body moderate, normal, the tubercles slightly elevated and the segments subannulate posteriorly. Dark gray, faintly longitudinally lined in pale; very faint darker subdorsal band and blackish dashes anteriorly on the segments above the pale subventral fold; joints 10 to 13 more heavily black shaded. No well defined marks. Tubercles blackish, setae short; feet concolorous. Anal plate large; a pair of short anal prongs. A distinct short collared elevation appears on joint 5.

Stage V. Head rounded, slightly bilobed, large, full, oblique; whitish, all the vertex covered with pale gray, mottled blotches, leaving a little white at the sides only; a broadly low triangular white space, edged with black above, trisected by the clypeal sutures; epistoma gray; antennae moderate, incurved; width 2 mm. Body moderate, the central segments not quite twice as long as wide; a dorsal rounded elevation on joint 5 composed of two contiguous ellipses bearing tubercle ii of each side; ii of joint 11 on a smaller and sharper, but similar elevation. Anal plates rather large, rounded triangular; a pair of subanal prongs. Else smooth, tubercles scarcely elevated, black. Bark gray, mottled in ill-defined shades of cinereous and reddish; reddish dorsally with

traces of whitish subdorsal and lateral lines, the posterior parts of segments annulate and grayer; subventral fold pale with black dashes above anteriorly on the segments; venter with several irregular, geminate, crinkled, black lines, subtesselate blotched posteriorly on the segments; whitish orange shading at the spiracle especially on joints 5 and 6. Feet gray; spiracles black rimmed;

setae normal, short, ia to ib separate, iv stig-matal posterior, vii of three in a triangle subventrally, not much scattered. Cocoon a fairly close web of brown silk.

Food plant. The larvae were fed on wild cherry.

Eggs from a ♀ taken at Pine Grove, Colorado. Eggs July 10th, mature larvae August 10th, the moth again August 20th.

A NEW CATOLACCUS ON *SITOTROGA CEREALELLA* OLIV.

BY WILLIAM H. ASHMEAD, WASHINGTON, D. C.

The following new Pteromalid was bred at the U. S. Department of Agriculture from infested specimens of *Sitotroga cerealella* Oliv., taken by Mr. Dunwoody, in Philadelphia.

Catolaccus cerealellae, sp. nov.

♀.—Length 2 to 2.5 mm. Metallic bronze green, closely punctate and sparsely pubescent. The abdomen is conic-ovate and usually but not always a little longer than the head and thorax united the two or three basal segments tinged with cupreous, the segments subequal in length with some very delicate transverse aciculations.

The legs are metallic green, the knees, tibiae and tarsi, except the last joint, the scape of the antennae and the labial palpi being honey-yellow; the maxillary palpi and the rest of the antennae are dark fuscous; the flagellum is very slightly and gradually thickened towards apex, the ring-joints annular, the first joint of funicle being usually a little long-

er than the pedicel or as long, the following joints very gradually shortening to the club, the last being obtapezoidal in outline, a little wider at base than at apex; the joints of the club, or at least the first two, are wider than long. The head is transverse, wider than the thorax or about $3\frac{1}{2}$ times as wide as thick antero-posteriorly, thinnest at the middle. Wings hyaline, the veins light-brown or brownish yellow. The metathorax is impressed on each side posteriorly with usually a short delicate median carina on the middle lobe at base.

The male measures scarcely 2 mm. in length, bronzed black, the flagellum being filiform and densely hairy, while the abdomen has a yellow median spot basally and is oblong-oval, not pointed at apex.

Type.—Cat. No. 6115, U. S. N. M.

Hab.—Philadelphia.

Host.—Lepid. *Sitotroga cerealella* Oliv.